Tuttle Community School Landscape Improvement

Conducted on behalf of the South East Como Improvement Association
Prepared by
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This report (NPCR 1132) is also available at the following internet address: http://tcfreenet.org/org/npcr

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INTRODUCTION

The Tuttle School Landscape Improvement Project is an NPCR (Neighborhood Project for Community Revitalization) project for enhancing the quality and safety of the school grounds and for making it a valuable community space for relaxation, recreation and gathering.

Neighborhood Planning for Community Revitalization (NPCR) connects Minneapolis and St. Paul neighborhood-based revitalization organizations to Twin Cities University resources. The primary goal of NPCR is to enhance the capacity of Twin Cities community-based organizations by providing relevant applied research and technical assistance. The secondary goal is to introduce Twin Cities University students and faculty to new community research and learning opportunities.

All recognized citizen participation neighborhood organizations and Community Development Corporations in St. Paul and Minneapolis are eligible for NPCR services. Projects are initiated and guided by neighborhood organizations. NPCR staff assist organizations in assessing and shaping projects to assure their success.

NPCR supports neighborhood projects in several ways: applied research assistance; course-based neighborhood projects (UNN); Internet assistance (Neighborhood Internet Committee), and informal connections to other university resources.

The main focus of the beneficiary community organization, Southeast Como Improvement Association (SECIA), for this project is to inquire and address the issues of community interest and involvement in the aesthetic and functional improvement of the Tuttle School compound. SECIA aims to provide an open forum for discussion on neighborhood issues and to educate residents, business and other groups on issues that impact the Como Neighborhood. For this project, SECIA is the coordinating organization for the design process and for helping the Project Supervisor and Research Assistant in developing a master plan for school grounds improvement.

The school body responsible for the communication of ideas between the parents and teachers and the community members is TPSO (Tuttle Parent Staff Organization). Together with SECIA, the TPSO seeks to address the beautification and enhanced safety of the school compound.

PROJECT DESCRIPTION AND GOALS

The Tuttle School Landscape Improvement Project seeks to beautify the Tuttle School grounds and to make it an attractive and functional gathering place.

The main goals of the Tuttle School Landscape Improvement Project are to:

1. Beautify the school and neighborhood by making the playground a more pleasing place using flowers, shrubs and trees

2. Create a safer playing environment for the children during and after school by landscaping the property such that it is more open and visible

3. Make the school more welcoming to the neighborhood and have it become an informal gathering place for kids and parents

4. Enhance the landscape design by adding birdhouses, and/or a small fishpond, and/or building a small conservatory for the neighborhood

5. Work with the current funding TPSO and SECIA has raised to complete a landscaping project. The research assis tant if interested, can create two phases which will allow the school and community to implement phase I while raising money to complete phase II

PROJECT SUMMARY

The Tuttle School landscaping project was coordinated by the community organization, SECIA, and the research assistant conducted the necessary research and analysis for the site. Local and national precedents were studied for design issues and considerations. Extensive literature search for publications and internet resources was conducted by the research assistant towards gathering recent information and recommendations for child play areas and school compound design.

Research was conducted for optimum choice of landscape elements and plants for the particular site. The design process was carried out in a sequential manner involving the community members at various stages of design conception and development. The Site Issues and Opportunities and Concept Plan posters were presented to the community. With sufficient feedback and further research, a Program Statement was developed. This Program was presented at the Town Meeting where community members gave suggestions and feedback for the program features and elements.

A final Master Plan showing the various improvements was made to scale and included design recommendations. The set of design recommendations were presented to the community members with the Master Plan and the accompanying poster showing the sketches and sections for the proposed improvements. The community members expressed satisfaction over the Master Plan and the accompanying illustrations and the community will implement the improvements in phases based on priority.

The design recommendations from the Master Plan and the illustrations explaining the proposed improvements are presented in this report submitted to the Neighborhood Planning for Community Revitalization.The appendix includes areawise calculations for improvements, Planting Plan and Master Plan.

TUTTLE SCHOOL SITE

The school is located in a residential area immediately north of Como Avenue. It is bounded by Talmage Avenue to the North, 18th Avenue to the West and 19th Avenue to the East. The school compound is open on all sides to the streets barring a fence at the northeast and southwest areas respectively.

The school was built in 1911 and the building was redone in 1926. Remodeling started again in 1979 and ended in 1981.

Recently, the school and neighborhood have constructed a playground with modern play equipment. The school authorities and the neighborhood wish to improve the grounds for the maximum use of the play facilities and for improving overall safety conditions in and around the school compound.

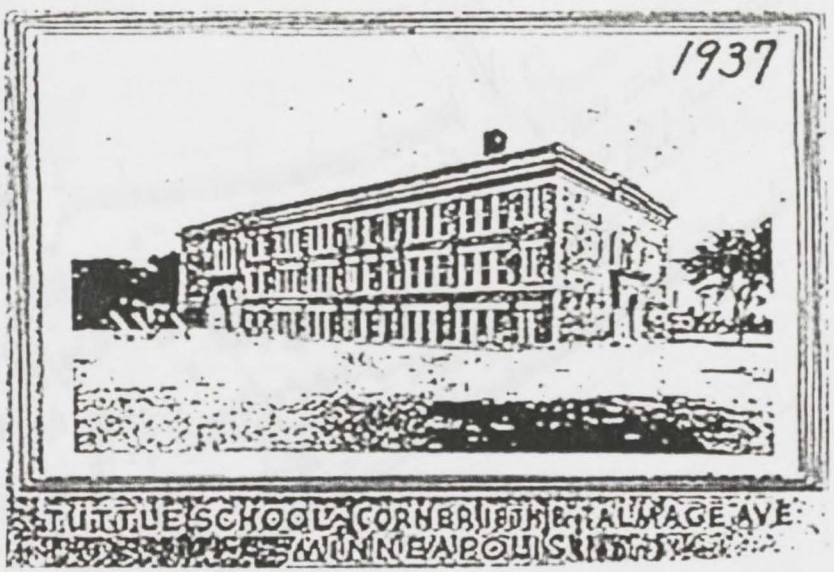

Fig 1. Picture of Tuttle School (1937)

DESIGN PRECEDENTS

Corona Avenue School Playground:
Valley Stream, NY
(Richard Dattner, Architect)

Design for a companion facility to the Howell Avenue School Playground (Figure 2). The area is protected and visually separated from a busy intersection by a fence and a tall hedge. The splashing pool at the right is used for ice-skating in winter.

It is worthwhile to note that a careful attention to design detail can result in quality spaces even in compromised and tight urban areas.

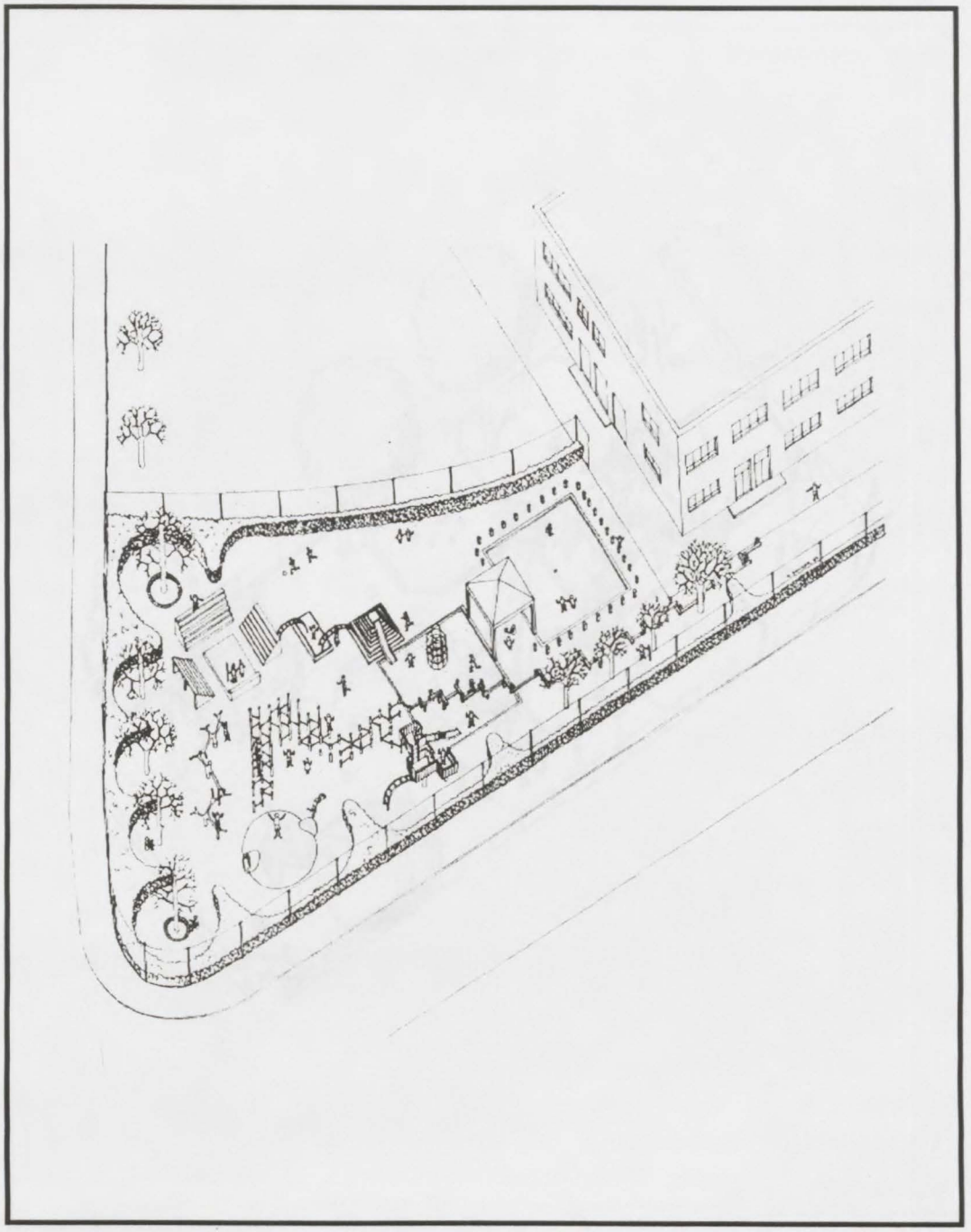

Fig 2. Corona Avenue School Playground (source: Richard Dattner, Design for Play)

Howell Avenue School Playground:
Valley Stream, NY
(Richard Dattner, Architect)

Sketch for a combined school and community playground built on a strict budget (Figure 3). All of the structures designed to be constructed by the school maintenance staff are supported on inexpensive wood poles.

Clockwise from lower left are: a stage, an amphitheater for outdoor classes, a rope net suspended over deep sand, an earth mound with concrete pipe tunnels, a rope bridge linking two wooden platforms, climbing poles, a splashing pool (obscured by trees) and a water channel.

In the Tuttle School context, the potential for building an amphitheater and an interactive water feature exists and will integrate well with the existing play equipment and exercise areas.

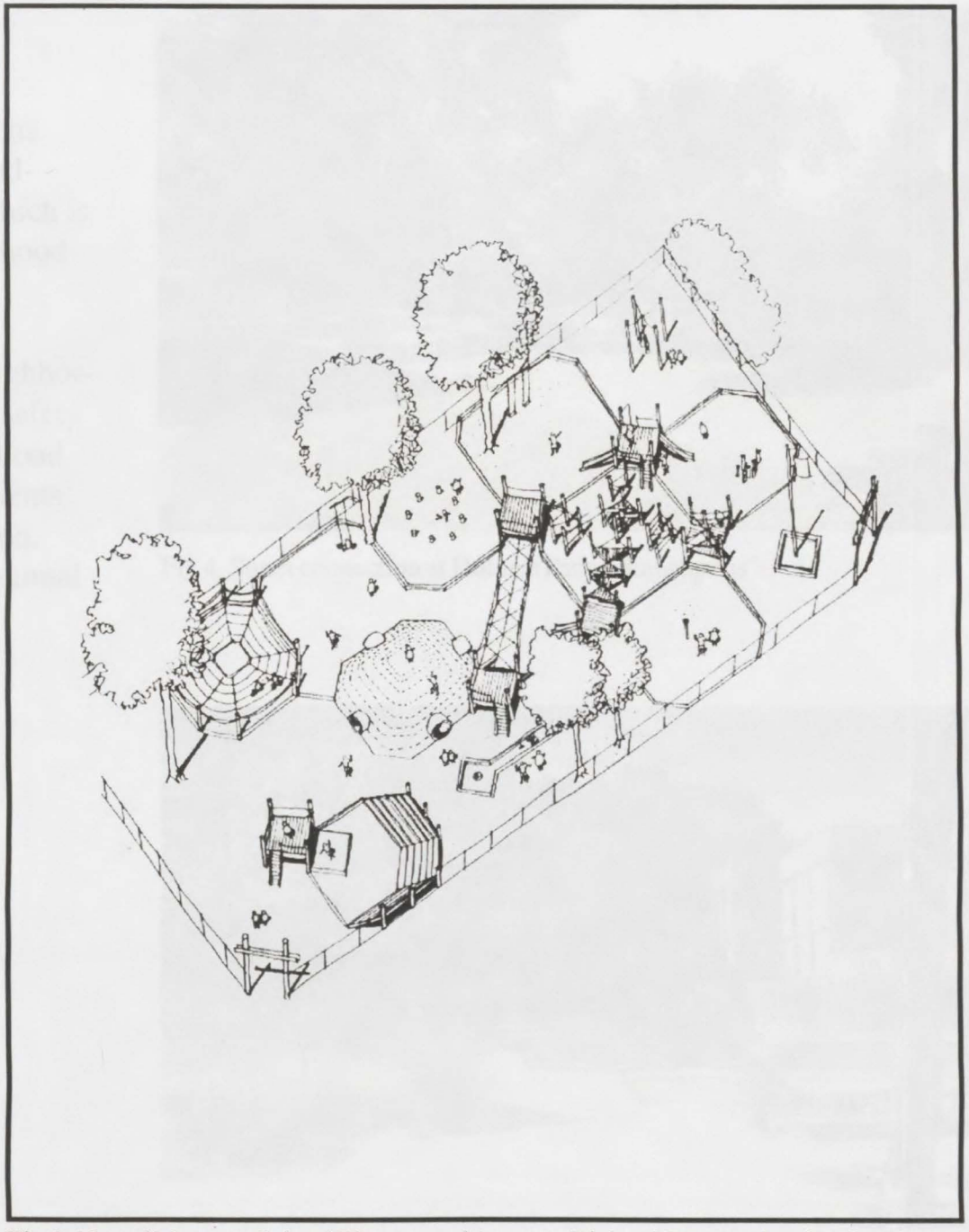

Fig 3. Howell Avenue School Playground (source: Richard Dattner, Design for Play)

LOCAL PRECEDENTS

There is ample evidence of design considerations working in an urban context that successfully address access and circulation in Holmes Park which is located in the nearby Marcy Holmes Neighborhood (Figure 4).

Another small vest pocket park in the same neighborhood (Figure 5), addresses the issues of child safety and play in a very tight and compact neighborhood space. This park effectively combines the elements of seating for parental supervision and relaxation, structured play for physical development and animal sculptures for interest and activity.

Fig 4. Street connection at Holmes Park, Minneapolis

Fig 5. Small pocket park in the nearby Marcy Holmes Neighborhood

SITE CONTEXT

The school is located in a residential area immediately north of Como Avenue. Como Avenue is a busy commercial-industrial area and is on the city bus route. It is bounded by Talmage Avenue to the North, 18th Avenue to the West and 19th Avenue to the East.

The issues that need particular attention are access and relation to the street, safe and efficient drop-off and pick-up operations for the school buses and clear sightlines at all locations.

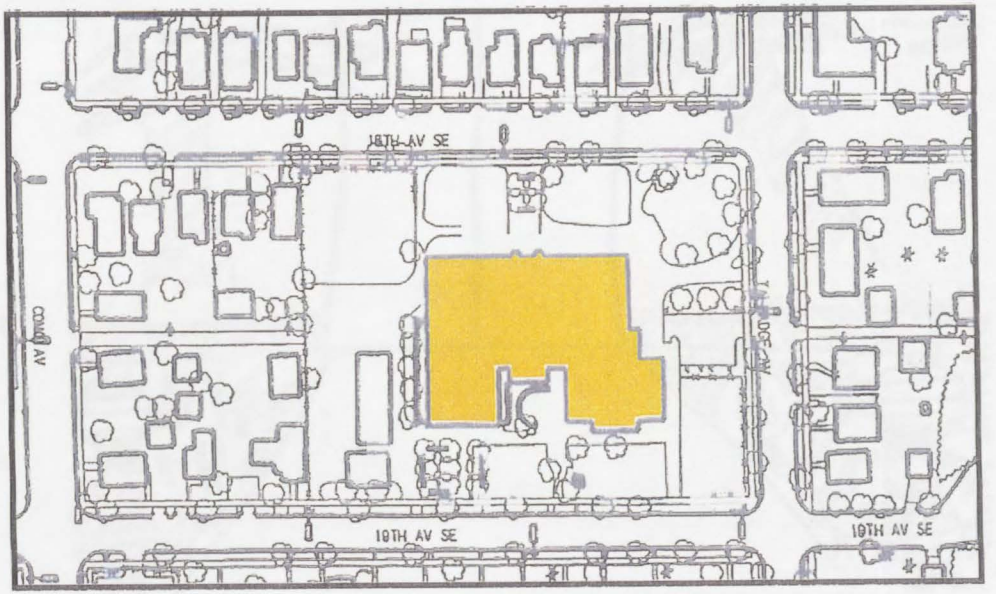

Fig 6. Map showing Tuttle School in the immediate neighborhood context

Fig 7. North side of school should be improved to open up to the neighborhood and still provide effective separation from the street

DESIGN PROCESS

In order to make the design comprehensive and applicable to all members and age groups within the community, the Research Assistant held meetings with the school parents, teachers, school maintenance staff, physical education teacher, crime prevention specialist and more importantly with the school children.

The design process was sequentially carried through a systematic survey of the site. The school site was analyzed for issues and concerns and the input from all the community members and representatives was used to inform the design criteria.

A small workshop with the Championship group of the school children was organized. The Research Assistant was able to gather various ideas and views from the group. The children expressed their views in the form of comments for new spaces and sketches for the school compound.

Sketches presented here (Figures 8-9) are examples of the children's impressions for a new school entrance.

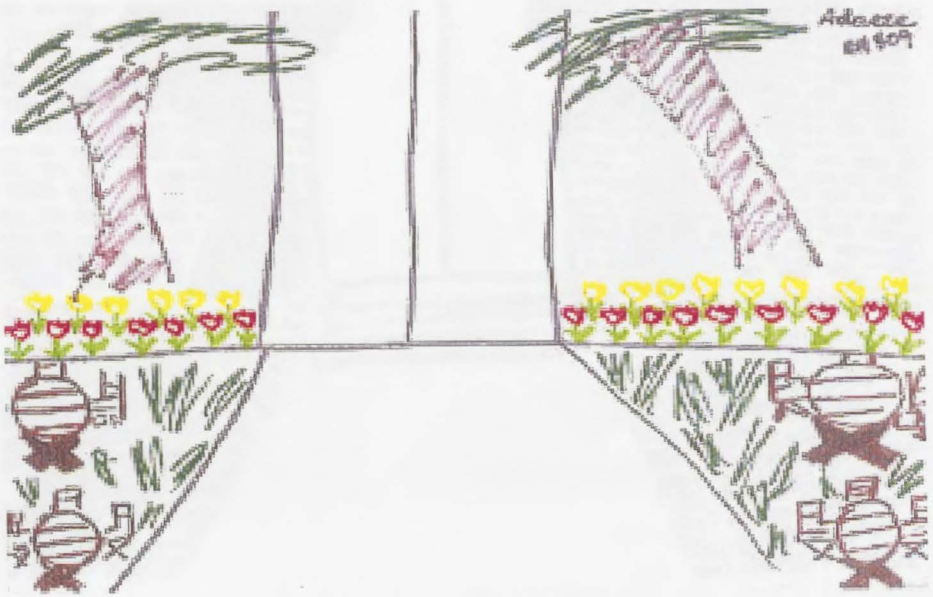

Fig 8. Children's views for a new entrance to the school

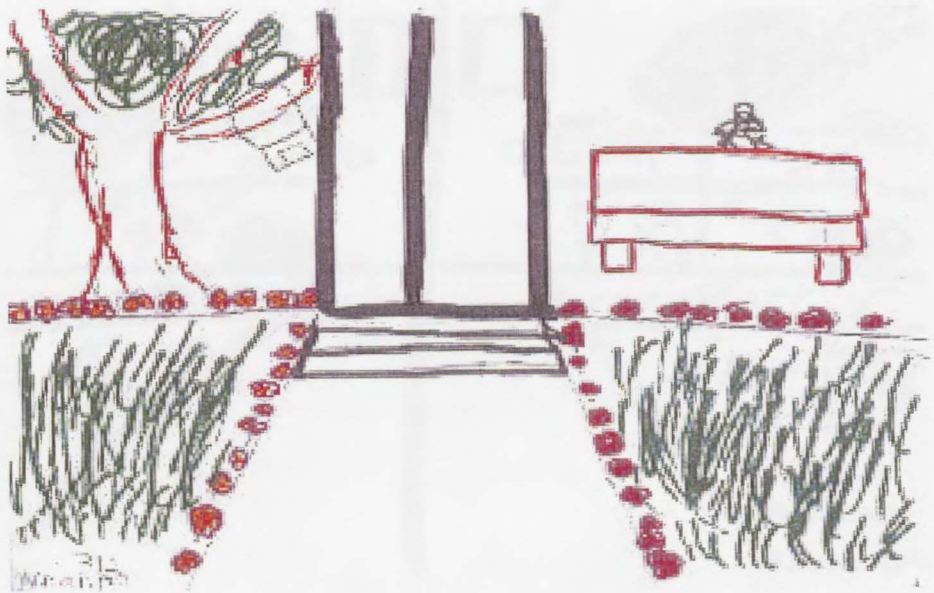

Fig 9. Children's views for a new entrance to the school

Some more impressions for a new school entrance made by the Championship group of the Tuttle School children (Figures 10-11).

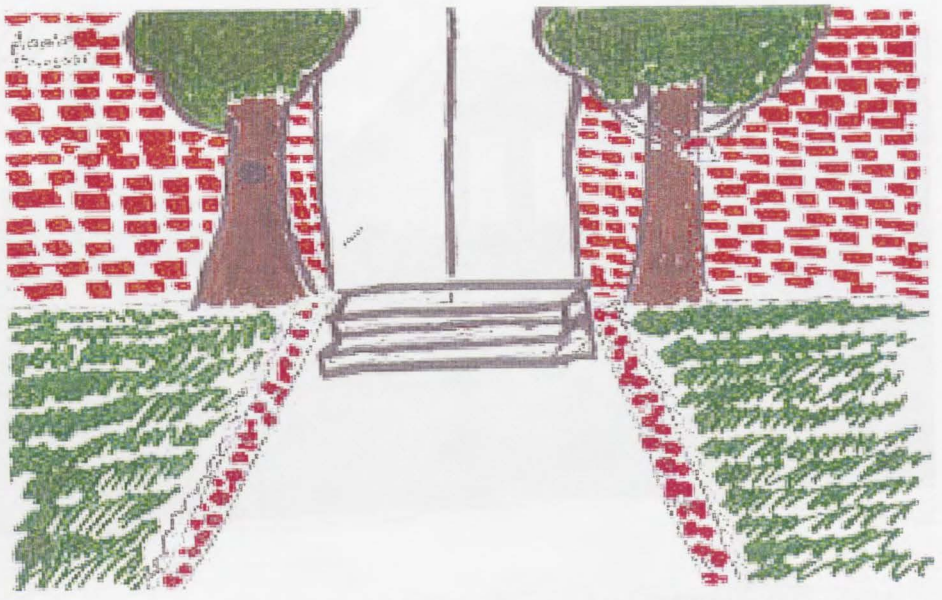

Fig 10. Children's views for a new entrance to the school

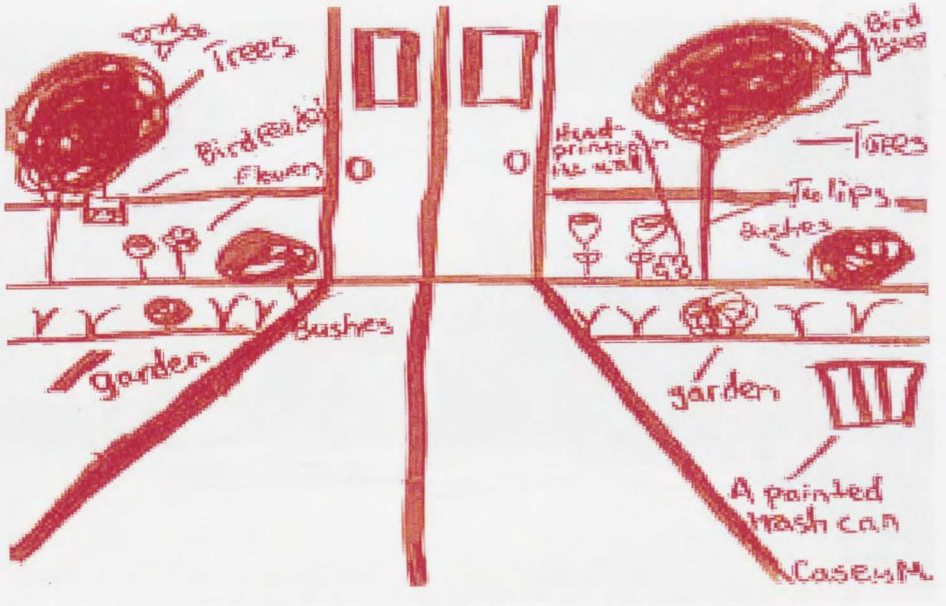

Fig 11. Children's views for a new entrance to the school

SITE ISSUES & OPPORTUNITIES

The school site was analyzed for various issues and the opportunities were identified. In the following photographs (Figure 12-19), the site issues have been addressed and captioned.

The dumpsters are currently located near the north entrance to the school and are an interruption to the path that connects the east and west sides of this area of the school.

Fig 12. Dumpsters near entrance hinder free movement along the north side

Fig 13. Excessive, bare pavement areas are seldom fully utilized and the dumpsters are a visual blight near the north entrance

The Northeast corner is bounded by a high fence which is not a very welcoming feature to the neighborhood.

There is also a possibility of expanding the area around the cul-de-sac at the end of 19th Avenue for an outdoor green laboratory space for the education of the school children.

Fig 14. Area bounded by high fence could become a welcoming space

Fig 15. Possibility of acquiring and using the area north of the 19th Avenue and Talmage intersection as an outdoor green laboratory

The present starkness of the plain, unarticulated walls (Figure 16) and the asphalt paving needs to be softened with effective planting. Replacing the bike rack from its current location to the new location (Figure 17) would result in a better use of both spaces.

Fig 16. Carefully chosen plants can soften the starkness of the wall and paving

Fig 17. Relocating the bike rack at this location would ensure increased safety and effective use of this space

Relation to the street is a crucial aspect of school compound design and due consideration needs to be given to access, circulation, play and learning in a safe environment (Figures 18-19). At the same time, it is very important not to cordon off the school from the neighborhood.

Fig 18. Undefined spaces do not effectively safeguard children from the street

Fig 19. West side of school compound could be defined into distinct functional areas for play, outdoor classroom and entry spaces

The site analysis and opportunities studies were used to prepare a Concept Plan that was presented to the community members at the Southeast Como Community Shebang which was held at the School (Figures 20-21).

Community members expressed their views and ideas to the Research Assistant and gave their comments and suggestions for the project.

The Concept Plan and Site Issues Posters were on display at the School for two weeks after the meeting to allow the parents, teachers and other community members visiting the school to write down their comments on the laminated posters.

Fig 20. Presentation of the Site Analysis and Concept to the neighborhood

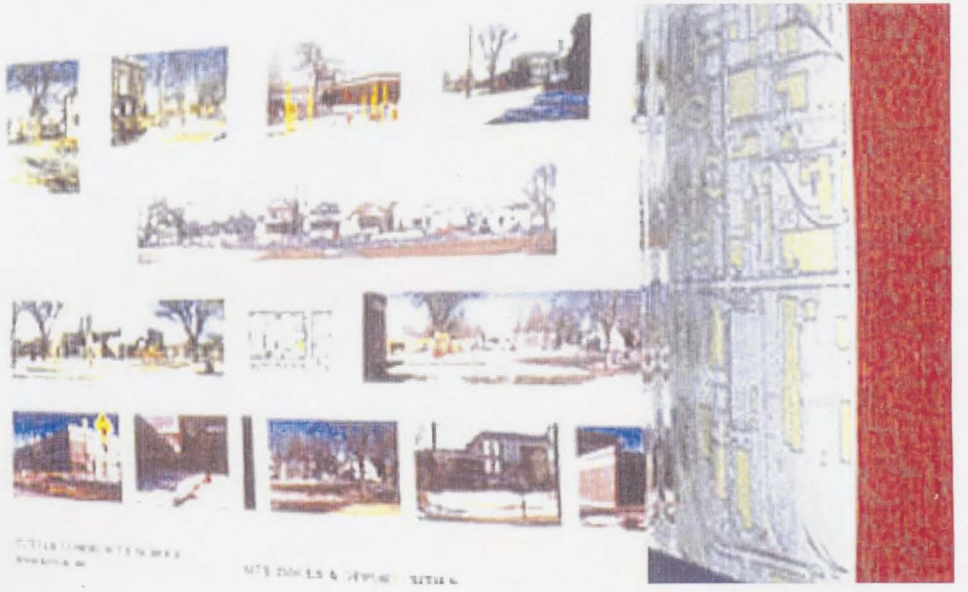

Fig 21. Site Analysis and Issues presented at the community gathering

PROGRAM FEATURES

Based on the input from the community and further research into the design issues and considerations, a Program for the school grounds improvement was made and the program features were identified. The program features include:

- improved west entrance for a well landscaped and strong entry experience
- outdoor classroom spaces for enriching children's interaction and experience with nature
- safe uninterrupted circulation establishing strong physical and visual connections for play zones
- planting scheme around building for enhanced bird & butterfly richness
- play and learn amphitheater as a pleasant space for all age groups in the community
- relocation of dumpsters for restoring safe circulation of children and handicapped
- grading south play field for a continuous and level open play space

PROGRAM ELEMENTS

Based on the program features, a list of the Program Elements for the school grounds improvement was prepared. The program elements include:

- replacement of concrete benches and two lanes of asphalt paving at west entrance with a single paved entry
- specimen/flower tree planting to create vertical enclosure and outdoor rooms on both sides of west entrance
- colored concrete for continuous circulation connecting play areas between northwest corner and east side
- planting scheme for enriched plant life with additional planting areas on east side of building
- grading south play field - resulting grade change to be used for attractive planting with retaining wall
- dumpster relocation at north grass strip along parking with marked backing lane for garbage removal
- replacement of underutilized paving at north side with green space for benches and access path
- adjustable plastic basketball triple shootout for younger children with safety surfacing at the northern side
- attractive stone signage at northwest corner and on amphitheater wall at the northeast corner

PROGRAM PRESENTATION

The Program features and the Program Elements were presented at the Town Meeting (Figures 22-23) to the community members and the different task forces of the neighborhood organization (SECIA).

The community members had the opportunity to give suggestions and comments for the project to the Research Assistant.

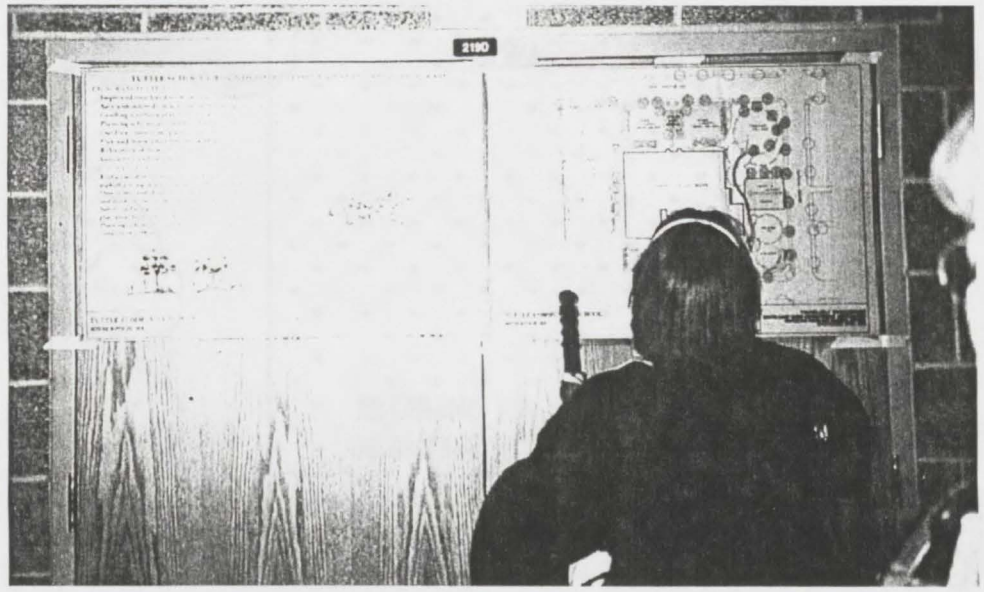

Fig 22 Program Statement and Elements Presentation at the Town Meeting

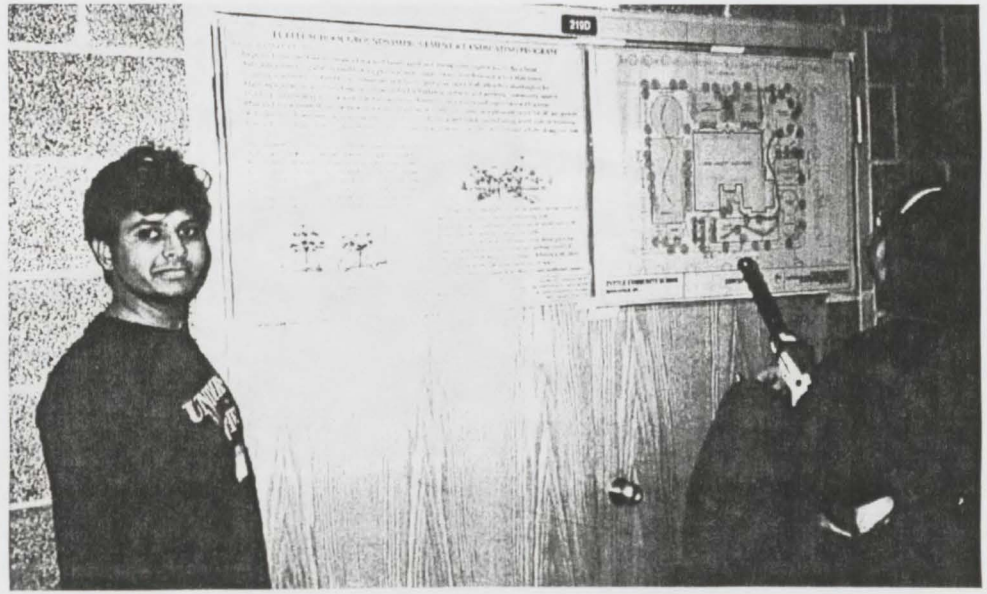

Fig 23. Program Statement and Elements Presentation at the Town Meeting

DESIGN RECOMMENDATIONS

The play field at the southwest side of the school is currently sloping southwards (Figure 25). This area is a popular play space and grading this area will result in a safe and level playing field.

The resulting grade change at the corner can be bounded by a retaining wall. The retaining wall can be effectively utilized for flowering plants that will serve as an added welcoming feature of the school for visitors from Como Avenue (Figure 24).

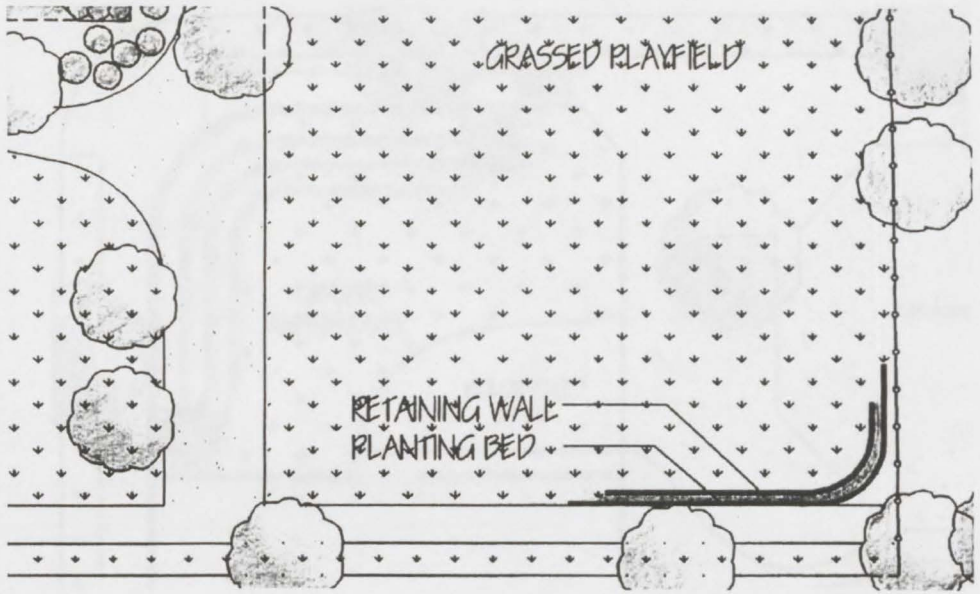

Fig 24. Proposed grading at southwest corner creating a wall with planting

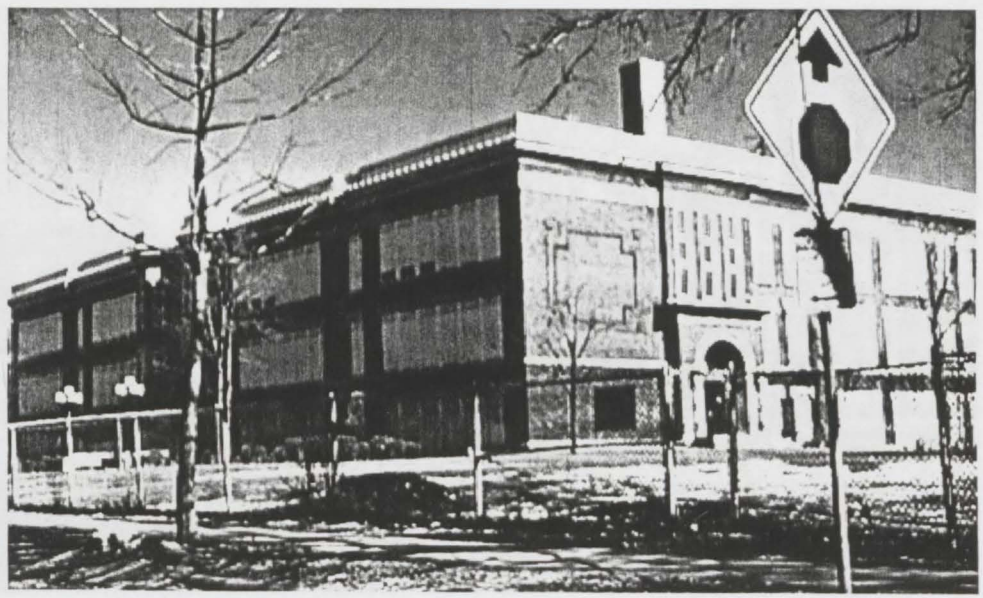

Fig 25. Planting bed will serve as an excellent introduction from this side

The northeast side of the school is an active zone for children's play (Figure 27). There is however, a disjointedness of the play features and areas here. It would be meaningful to connect the spaces with a strong paving pattern that extends to the northwest corner and the play area there.

The proposed amphitheater at the northeast corner (Figure 26) will integrate into the new enhanced play zone that will continue all along the east and north sides of the building.

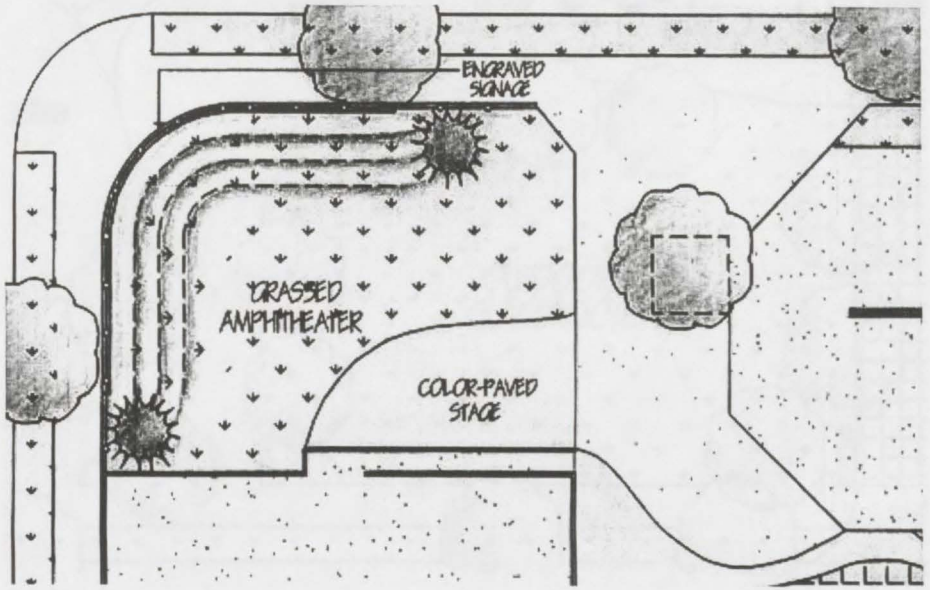

Fig 26. Proposed grassed amphitheater as an effective utilization of this area

Fig 27. Active play areas are presently separated from one another and need to be meaningfully connected by safe circulation

Outdoor spaces that are currently undefined (Figure 29) can be effectively enhanced to make outdoor classrooms (Figure 28) with the simple addition of shade trees and flowering trees (Appendix-Planting List).

Trees are an effective choice and can define and organize space, provide seasonal interest and a sense of enclosure and will also create benefits for wildlife.

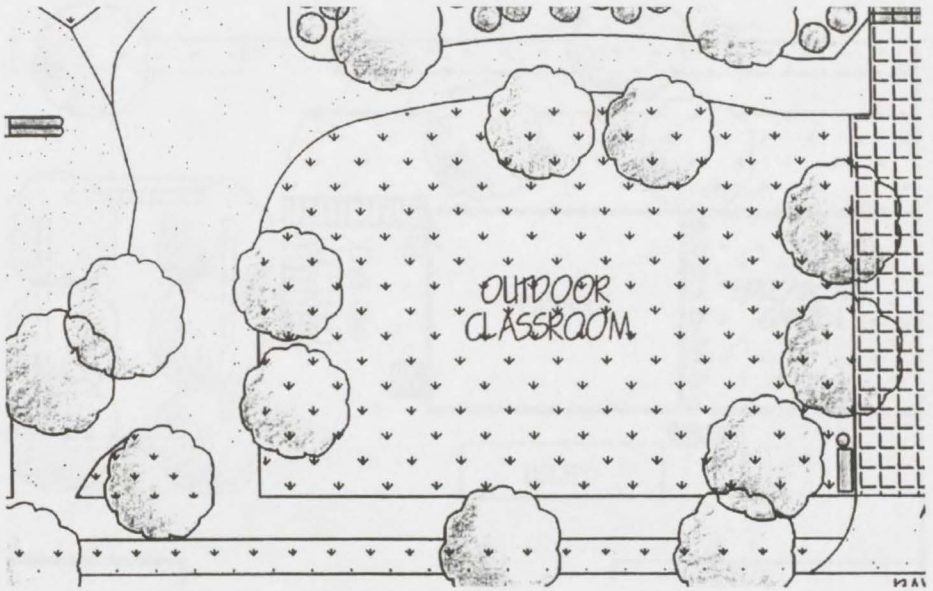

Fig 28. Proposed tree planting to create defined outdoor classroom spaces

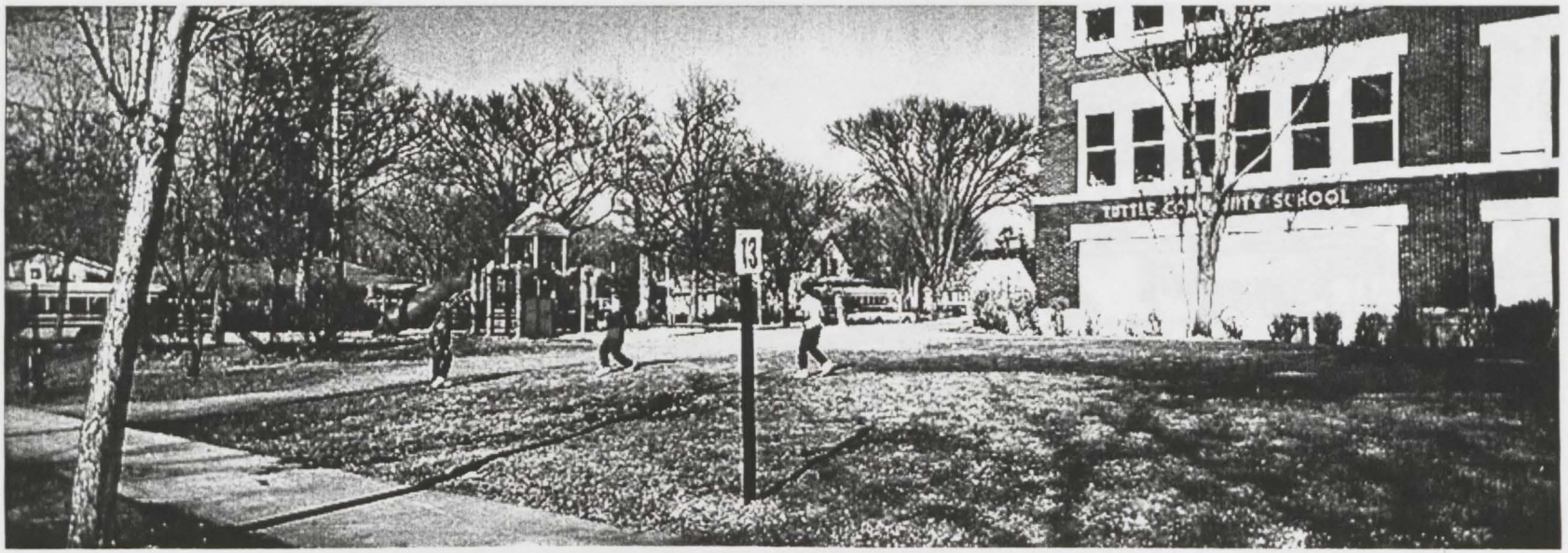

Fig 29. Sunny spaces need to be well defined and enhanced for outdoor spaces and activities and to safeguard children from the street

Relocating the bike rack (Figure 30-31) will result in a better use of both spaces and will make available planting space along the sunny east side of the building which is currently very stark and visually unappealing.

The new location of the bike rack is relatively safer and is a good choice for this otherwise unused space.

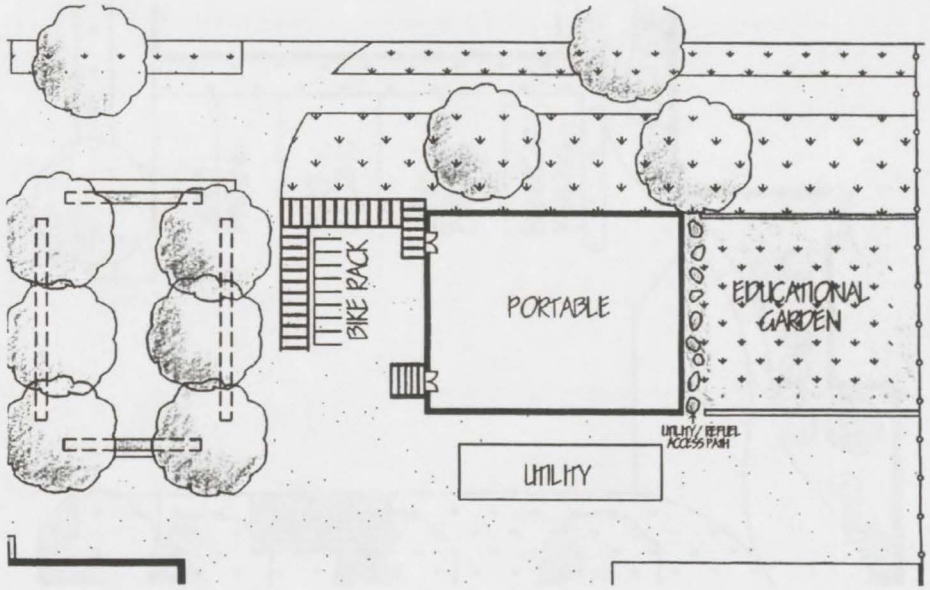

Fig 30. Proposed 'educational garden' and relocation of bike rack

Fig 31. This unused or leftover space could be a better and safer location for the bike rack

Redesigning existing parking (Figure 32) to accomodate a designated truck only parking lane allows for the easy and safe removal of garbage from the new location for the dumpsters. This new location allows for a clearer east-west sight-line and an enhanced appearance of the north entrance of the school.

The proposed change facilitates unhindered movement and access for the handicapped as well as for the children (Figure 33). The children can move and run along the colored concrete path that will connect the east and west sides effectively.

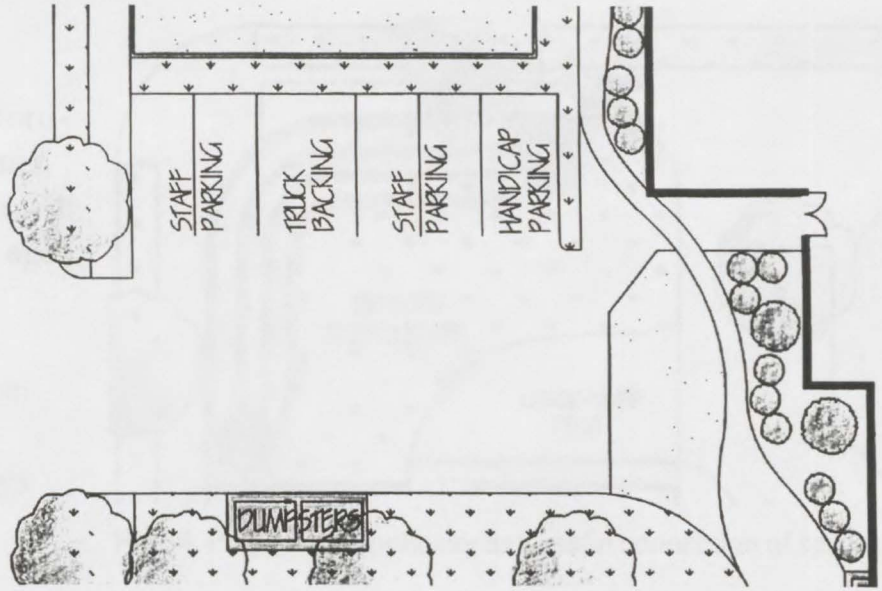

Fig 32. Improved parking for safer handicap access and garbage disposal

Fig 33. Dumpsters and parking arrangement obscure the north entrance and make movement tricky for children and the handicapped

The grassed amphitheater (Figure 34) is an effective and affordable solution to the present fenced area at the northeast corner. With minimal expenditure and maintenance, the amphitheater will prove to be an active and valuable community space for all age groups.

Bounded by evergreen trees that define the terraced area, the amphitheater would have a fence along the edge to protect younger children (Figure 35).The stage can be used for plays by the school children and for community activities.

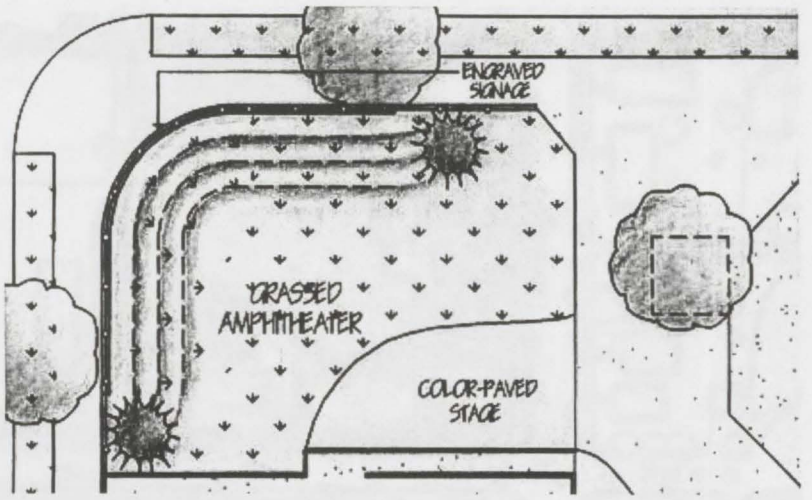

Fig 34. Proposed ampitheater as a useful connection of spaces

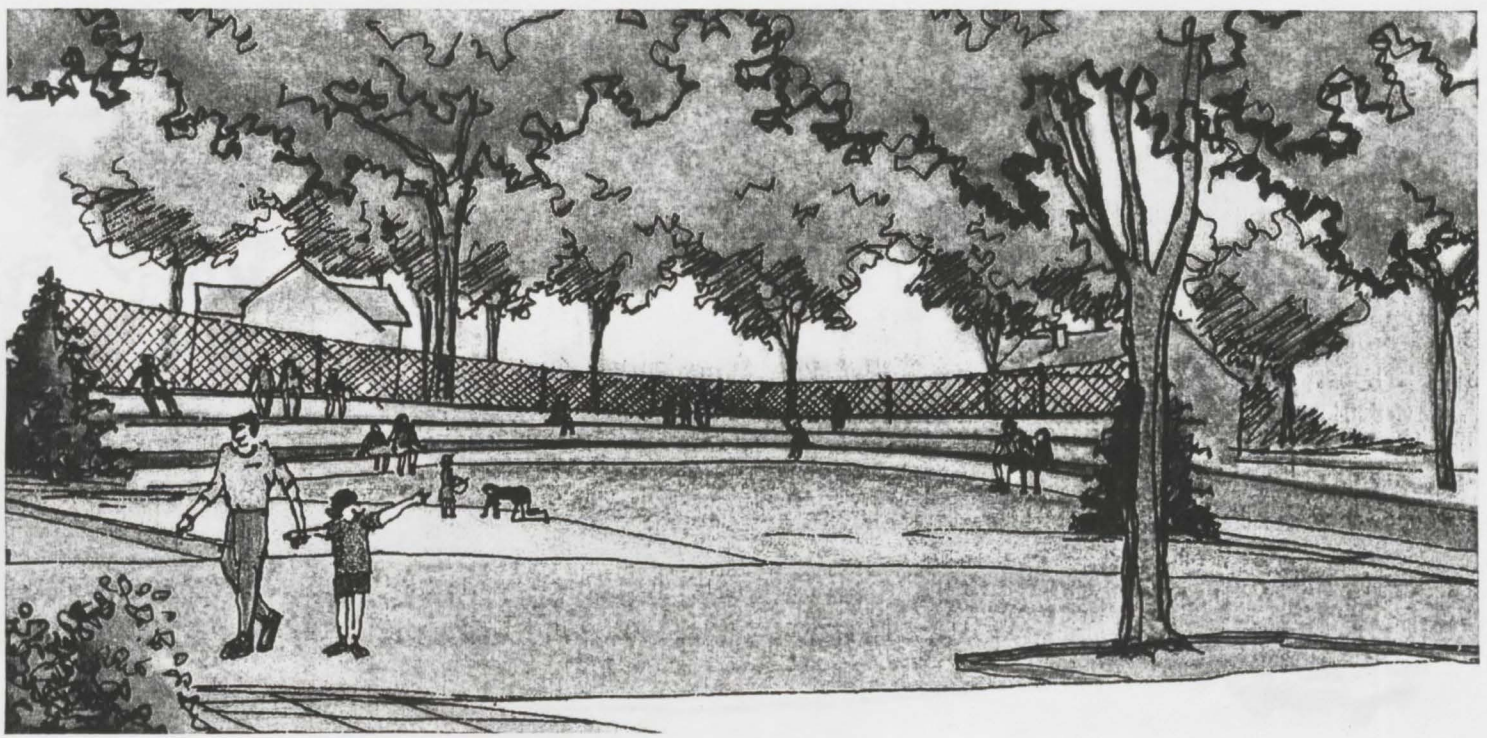

Fig 35. The grassed amphitheater as an active and very valuable community space for all age groups

The proposed amphitheater allows for a retaining wall (Figure 37) that can be effectively utilized for creating attractive stone signage announcing the school to the neighborhood.

This would address the present lack of signage and aesthetic appeal from this corner (Figure 36).

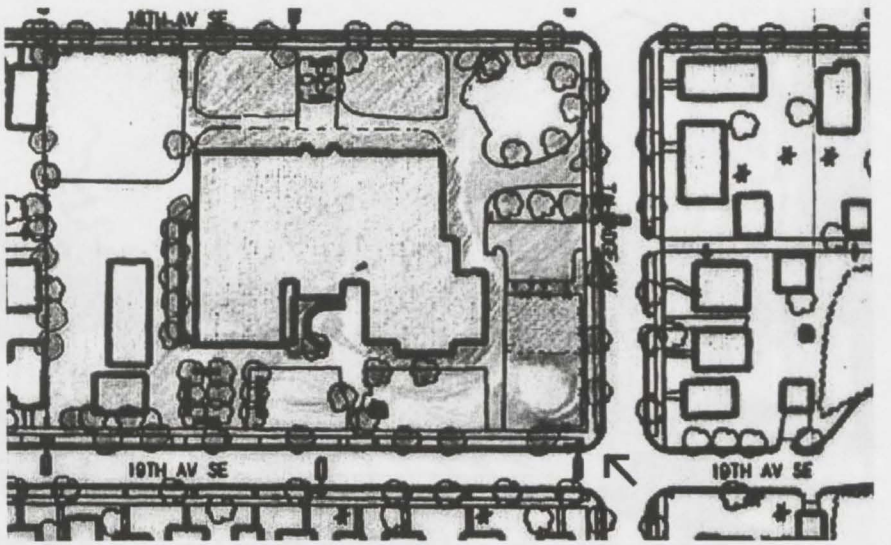

Fig 36. Figure showing proposed improvement at northeast corner

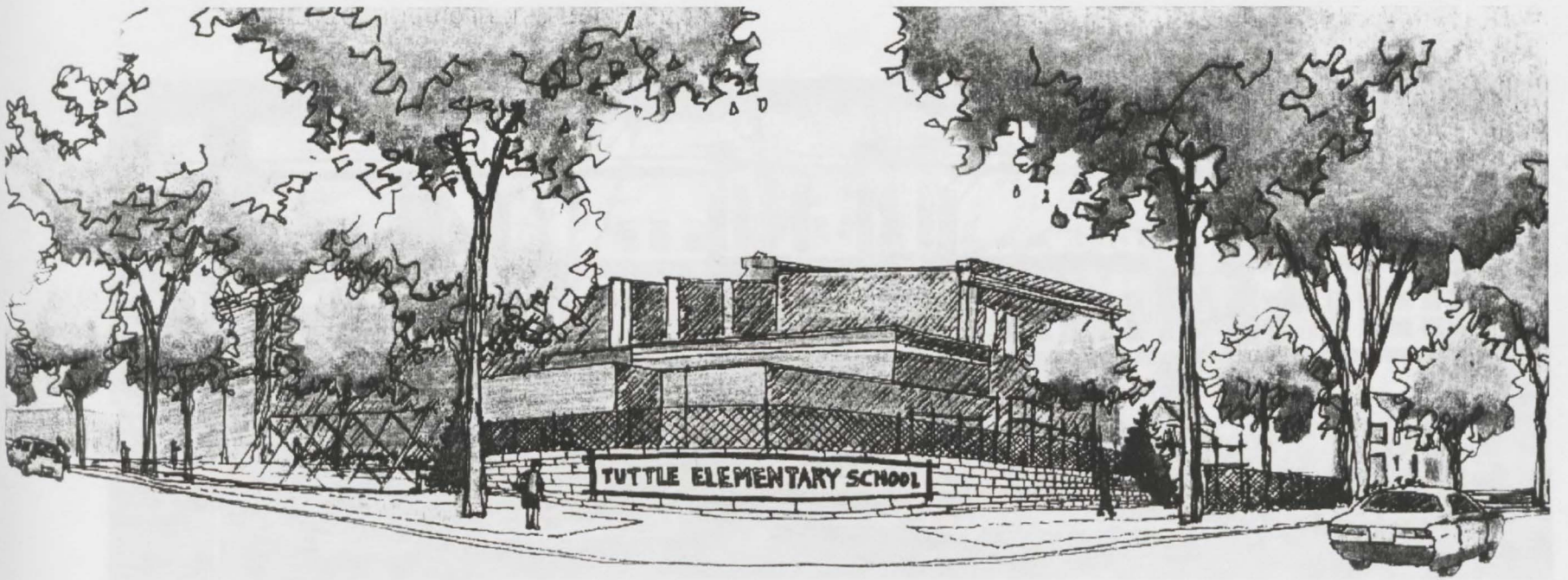

Fig 37. Attractive stone signage is as an effective use of the amphitheater retaining wall and serves as an excellent introduction to the neighborhood

Replacing the existing concrete benches and two separate asphalt paths at the west entrance with a single strong paved entry will enhance the aesthetic appeal.

The furniture and paving will provide the texture and color to make the place inviting and functionally successful.

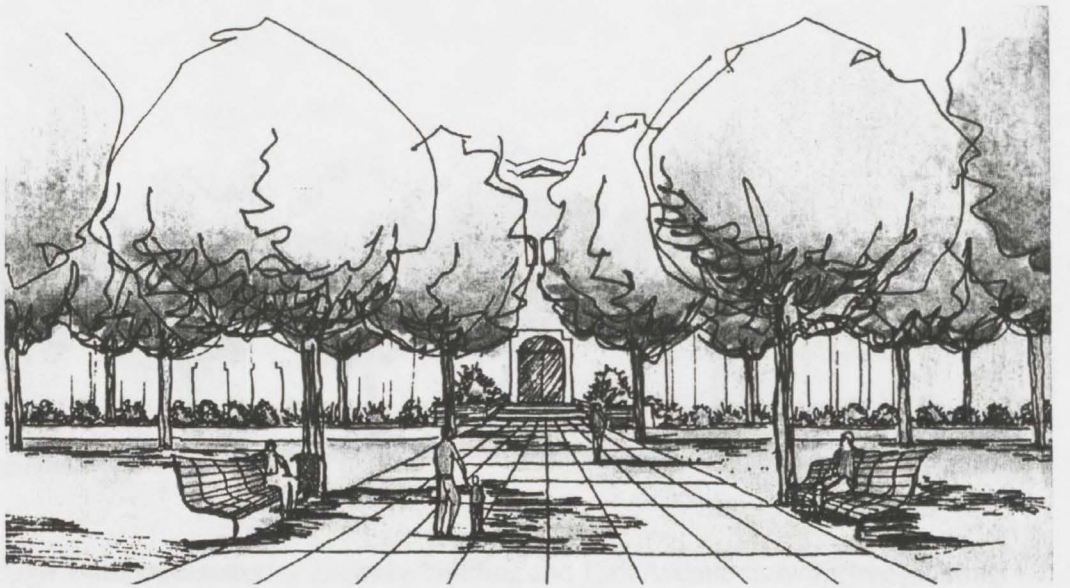

Fig 38. Inviting tree-lined paved entry and furniture enhance the entry experience

Fig 39. Concrete benches at this side are more of an obstruction to the entrance and separate paths appear redundant in this context

The 'outdoor classroom' area (Figure 40) is an important and effective soultion that works in most school building designs, particularly in an urban context.

The sense of enclosure and safety that result will add to the quality of this large open space (Figure 41).

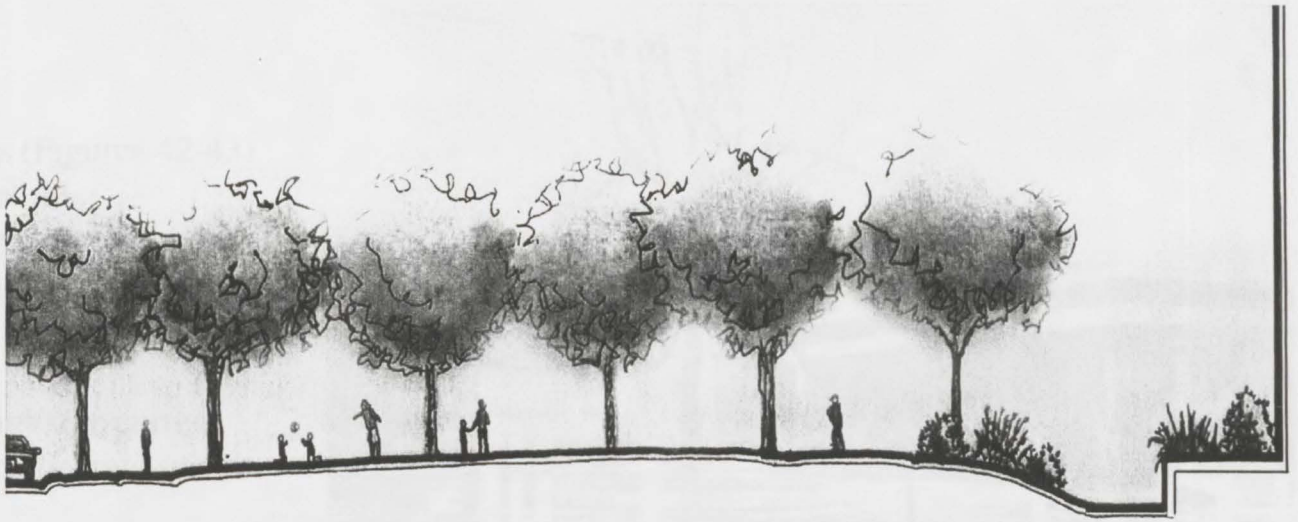

Fig 40. Section through 'outdoor classroom' between building and 18th Avenue showing tree planting

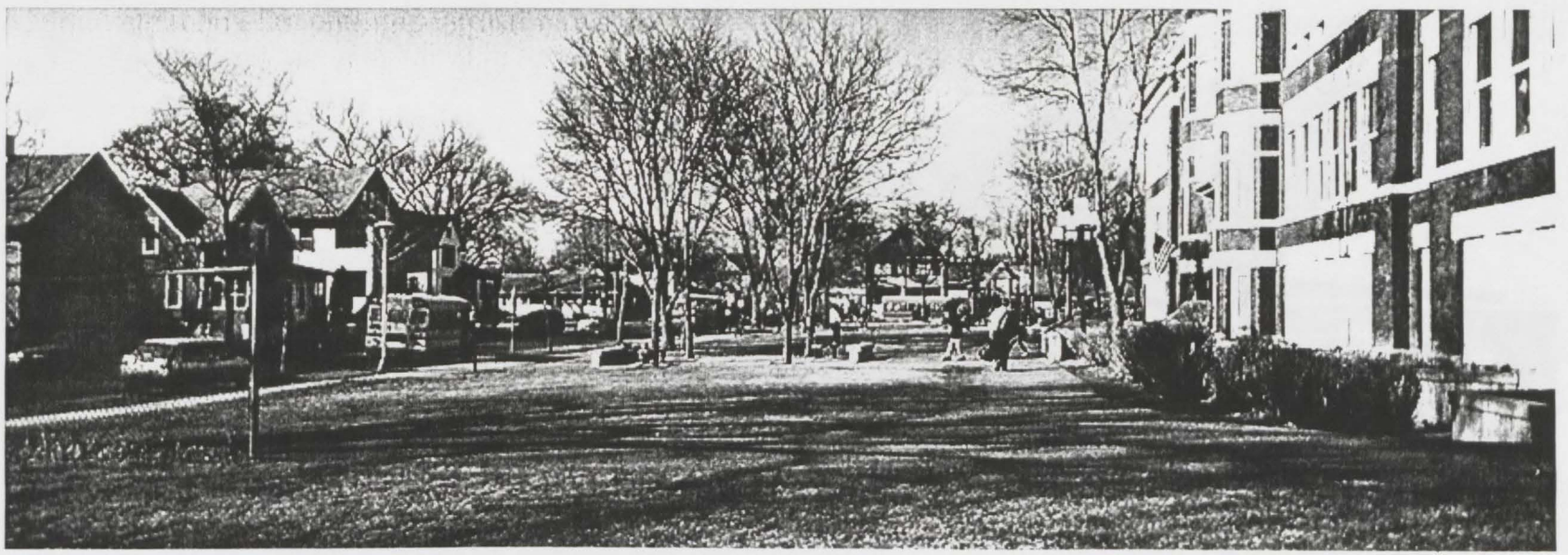

Fig 41. Relation to the street, dropoff and pick up areas, access and definition of active functional spaces needs to be addressed

The before and after comparisons (Figures 42-43) show the effective enhancement of this underutilized space by the use of textural variety brought about by plant and paving textures and a water feature.

The water feature fits splendidly into the current circular space that has just a plain concrete surfacing.

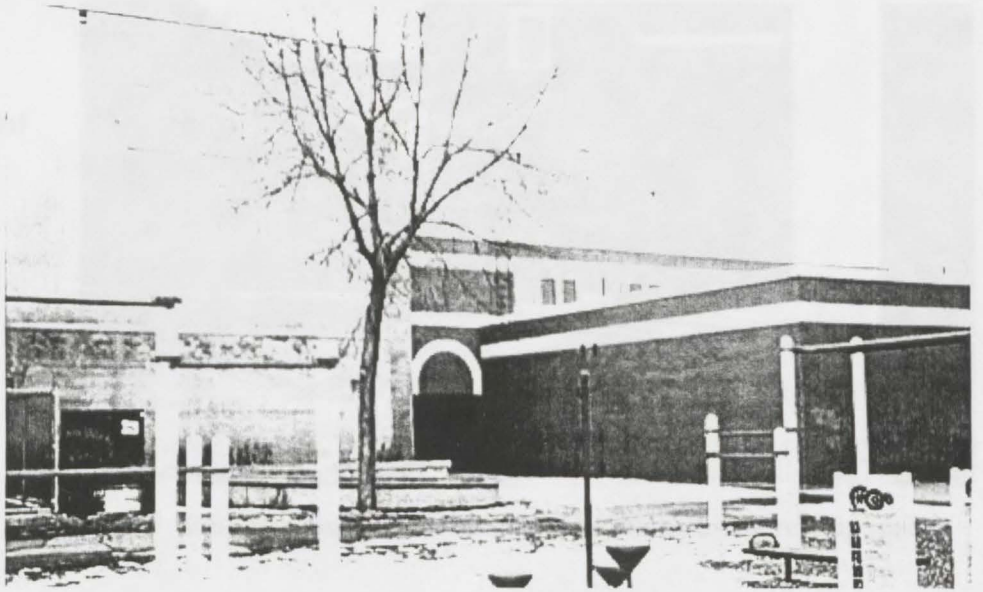

Fig 42. Existing underutilized space at theeast side of school building

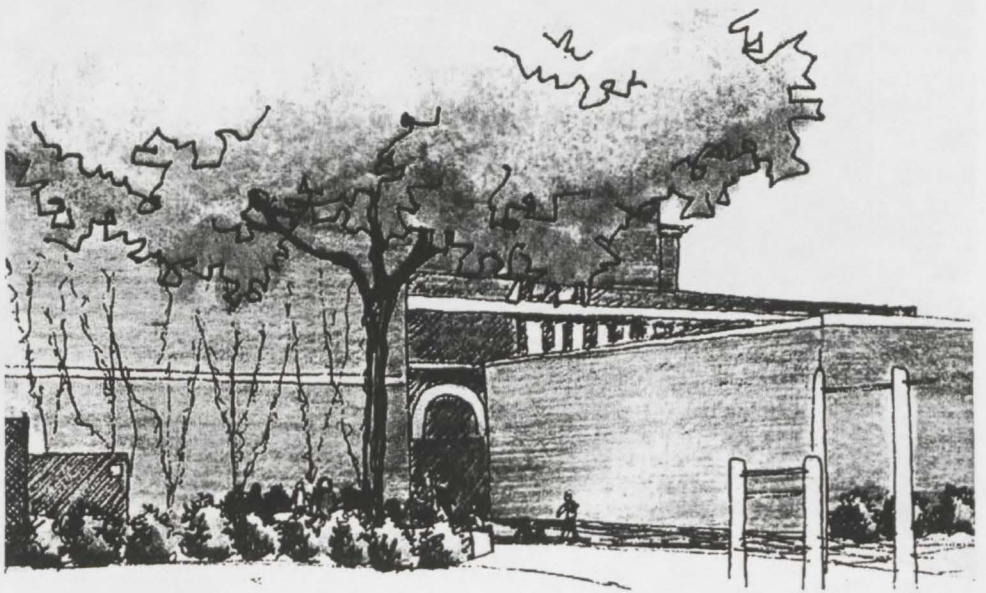

Fig 43. Proposed water feature with plants and seating for play and relaxation

The current underutilized space at the east side of the building can be effectively enhanced with the addition of a water feature that makes this space comfortable and appealing.

The before and after pictures (Figures 44-45) highlight the change in the quality of space that results from a careful choice of plant, paving and structural textures.

Fig 44. Starkness and lack of variety make this an uninteresting space

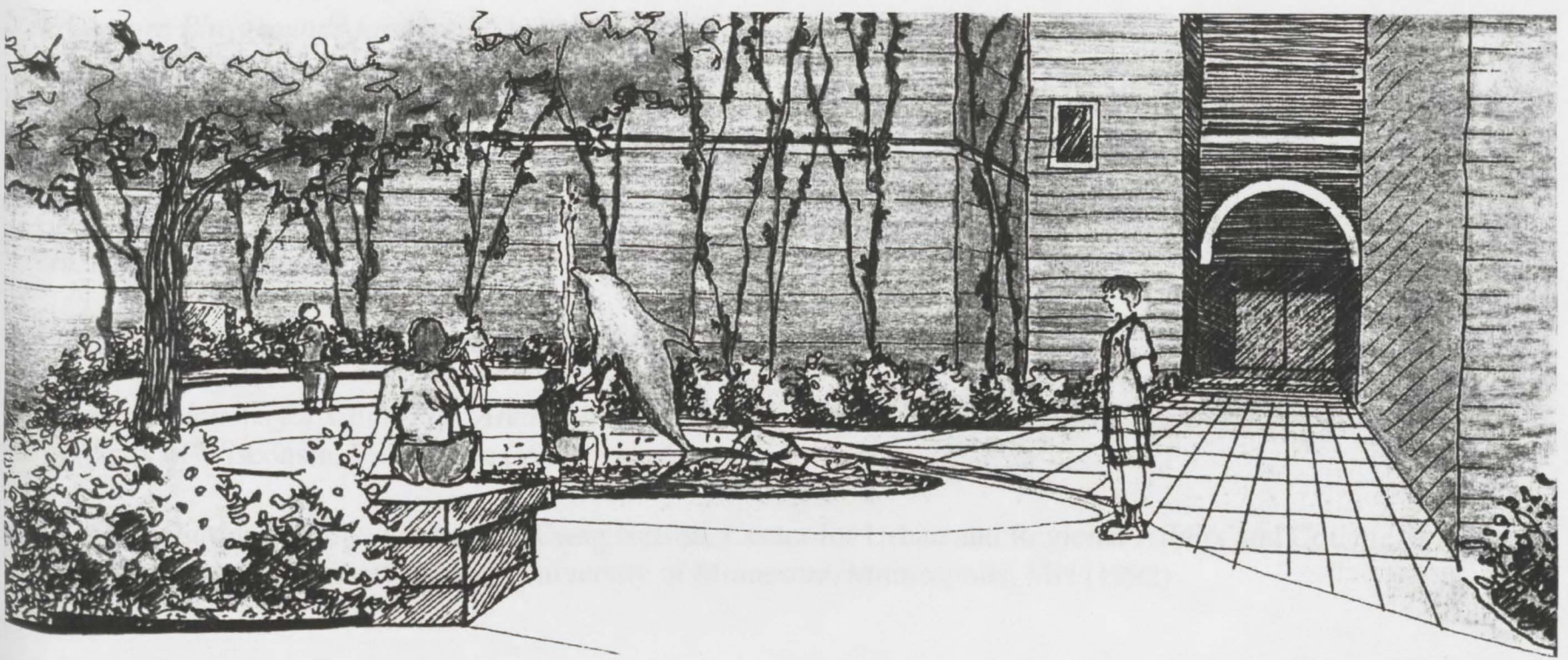

Fig 45. Varying textures and a colorful water feature make this otherwise unused space comfortable and appealing for children and adults alike

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APPENDICES

Areawise calculations for proposed improvements

(approximate calculations for budgeting purposes and may be used according to priority)

1. West entrance paving (sidewalk to entrance steps)
   approx 1178 sq ft or 1178 unit pavers (1 sq ft each)

2. East entrance paving
   approx 2150 sq ft (E-W walk 1600 sq ft + N-S walk 550 sq ft)
   or 2150 unit pavers (1 sq ft each)

3. Basketball concrete surface (2 shown on plan)
   approx 2300 sq ft for one half court

4. Colored concrete (complementing/contrasting/paving).
   Pigmented concrete surface connecting play areas along east and north sides of building
   approx 3686 sq ft

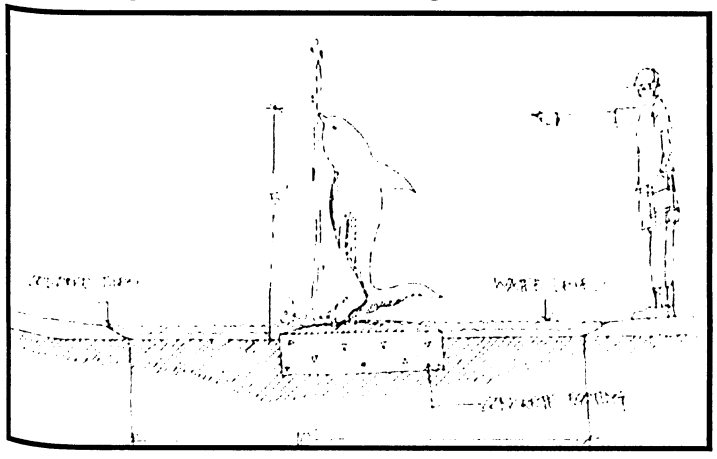
5. Dumpster base concrete
   approx 120 sq ft

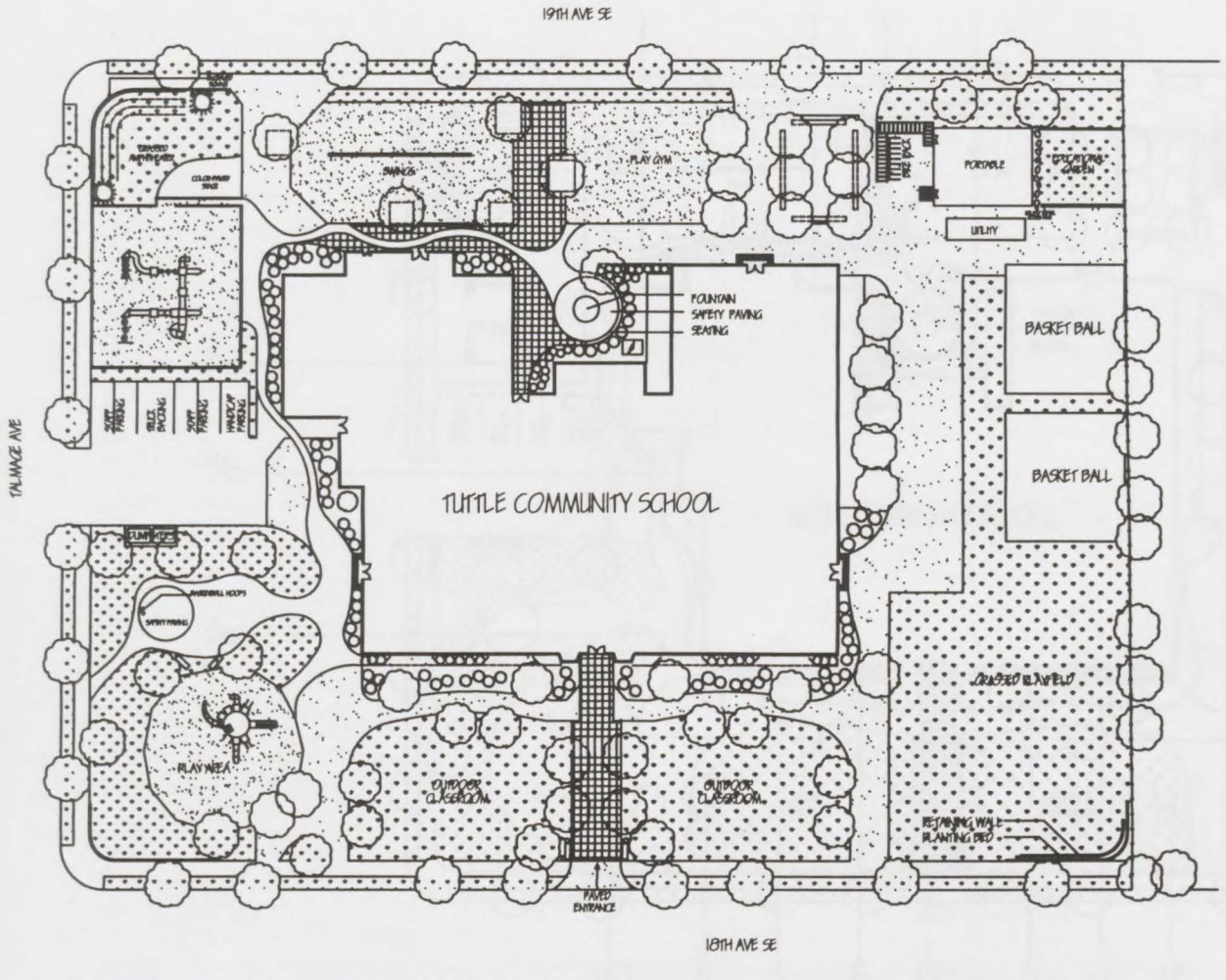
6. Safety surfacing in order of proprity (catalogs available)
   a) Kids basketball shootout area - approx 314 sq ft
   b) Water feature play area - approx 374 sq ft
   c) Amphitheater stage (if not concrete) - approx 420 sq ft

7. Play equipment adjustable triple shootout (3 baskets/3 heights)

8. Amphitheater
   Grassed terracing - 3' wide, 1.5' high X 3 levels.
   Earthwork - to fill approx 1485 cu ft

9. Water feature
   5 ft high Dolphin structure (Stone/Granite)
   78.5 sq ft colored tiles/irregular mosaic





- Improved West Entry - Replacement of existing concrete structures with paving
- Flowering tree planting to create vertical enclosure and outdoor classroom spaces on both sides of west entrance
- Planting scheme for enriched plant life around the school building for winter and butterfly gardens
- Dumpster relocation at grass strip along parking with backing lane for safe garbage removal
- Replacement of underutilized paving at north side with green space for benches and access path
- Amphitheater at northeast corner with grassed terracing three feet apart (1.5' riser)
- Attractive clear signage on northwest corner and on amphitheater wall at the northeast corner
- Colored concrete paving for continuous and safe circulation connecting the play areas
- Basketball hoops for younger children with safety surfacing at the north side
- Tree planting to create spaces, fill in missing trees and to define school boundary

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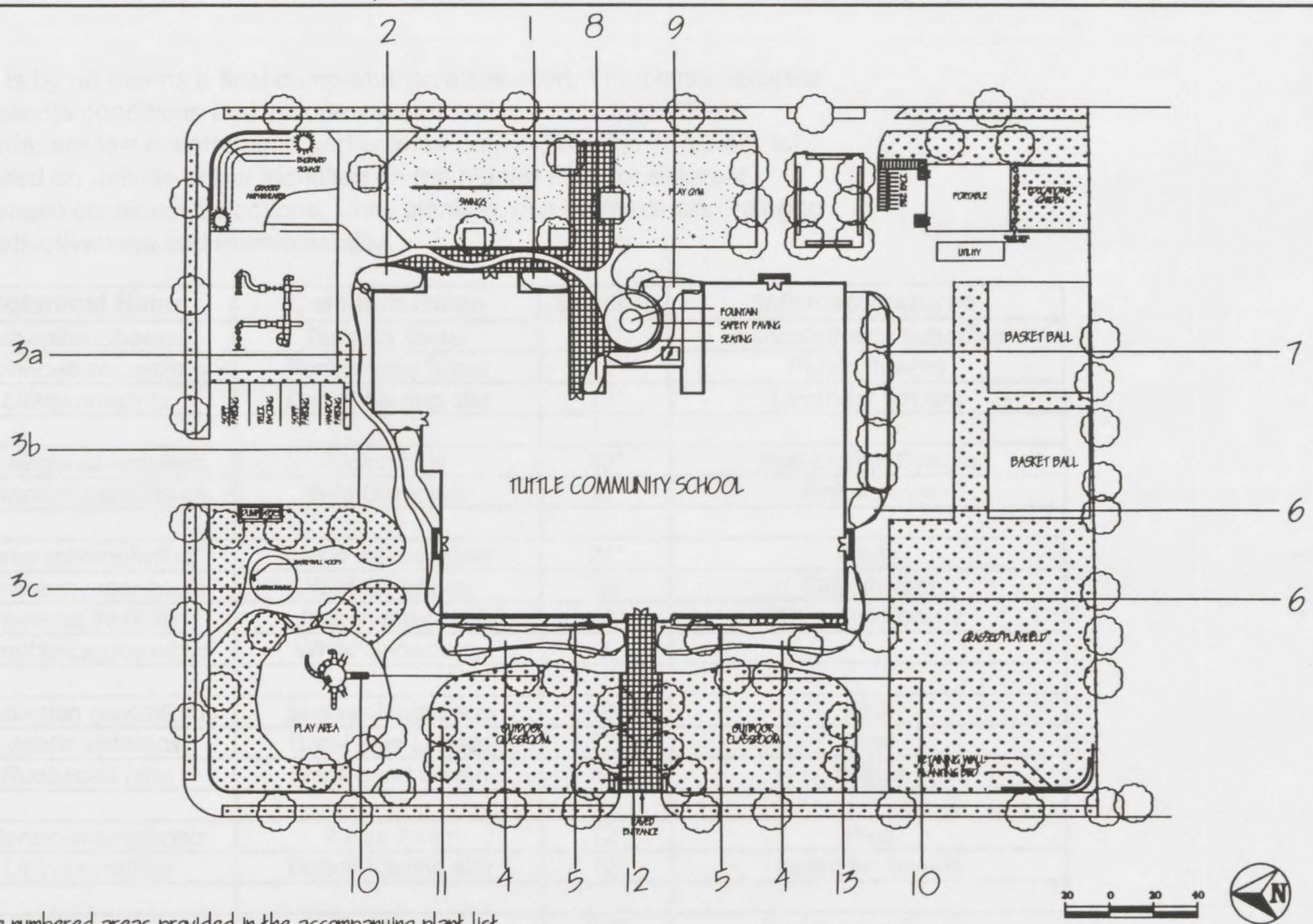
TUTTLE COMMUNITY SCHOOL
MINNEAPOLIS, MN

MASTER PLAN

TIRUNELVELY HARIKRISHNAN
SOUTH EAST COMO IMPROVEMENT ASSOCIATION
CENTER FOR URBAN & REGIONAL AFFAIRS
NPCR PROJECT JULY 1999



Plant selections for the numbered areas provided in the accompanying plant list

TUTTLE COMMUNITY SCHOOL **MINNEAPOLIS, MN**	**PLANTING PLAN**	**TIRUNELVELY HARIKRISHNAN** **SOUTH EAST COMO IMPROVEMENT ASSOCIATION** **CENTER FOR URBAN & REGIONAL AFFAIRS** **NPCR PROJECT JULY 1999**

Plant List

The following list is by no means a final comprehensive selection. The plants selected are ideal for Minnesota conditions and include several native plants that attract butterflies and birds, are low maintenance and provide native diversity. The plant list was compiled based on definite areas identified on the Master Plan for different light and microclimatic conitions. Selections, while planting, can be made according to availability, cost-effectiveness and maintainability.

Location	Botanical Name	Common Name	Spacing	Interest/Features
1	*Asclepias tuberosa*	Butterfly flower	12"	Orange/attracts butterflies
	Echinacea angustifolia	Purple cone flower	24"	Purple flowers
	Liatris punctata	Dotted blazing star	12"	Lavender flowers
2	*Aquilegia canadensis*	Columbine	12"	Red-orange flowers
	Geranium maculatum	Wild Geranium	12"	Pink flowers
3(a,b,c) & 5	*Aster macrophyllus*	Large leaved Aster	24"	White
	Geranium maculatum	Wild Geranium	12"	Pink flowers
	Arisaema triphyllum	Jack-in-the-pulpit	12"	Attractive flowers
	Symphoricarpos albus	White Snowberry	3'	
4	*Penstemon grandiflorus*	Showy Penstemon	18"	Pink
	Lobelia siphilitica	Great blue Lobelia	12"	Blue
	Rudbeckia hirta	Black-eyed Susan	24"	Yellow
6	*Aster oolentangiensis*	Azure Aster	12"	Blue
	Liatris punctata	Dotted blazing star	12"	Lavender flowers
7	*Aquilegia canadensis*	Columbine	12"	Red-orange flowers
	Geranium maculatum	Wild Geranium	12"	Pink flowers
	Campanula rotundifolia	Harebells	12"	Purple

Location	Botanical Name	Common Name	Spacing	Interest/Features
8	*Symphoricarpos albus*	White Snowberry	3'	
	Aster cordifolius	Heart-leaved Aster	12"	Blue
9	*Amelanchier alnifolia*	Regent Serviceberry	4'	Tall shrub
	Diervilla lonicera	Dwarf Bush Honeysuckle	4'	Low shrub
10	*Cornus alternifolia*	Pagoda Dogwood		Flowers
11	*Prunus maackii*	Amur Choke Cherry		Fruits and flowers
12	*Fraxinus quadrangulata*	Blue Ash		Notable fruits
13	*Malus spp.*	Crabapple		Flowers and fruits